# **Graph Based Pattern Recognition**

## Exercise 7

#### Basis

• Chapters 11 and 12

#### Submission

- $\bullet\,$  The submission takes place online on ILIAS.
- Solutions to the theory tasks must be submitted as \*.pdf file. Other formats will not
- Source code for the implementation tasks must be submitted as \*.py files. Source code that we cannot compile will not be accepted.
- Individual submissions or submissions in teams of two are allowed (hand in only one copy per group. In the source code file, include the names and matriculation numbers of both group members in the first two lines as comments).

• Briefing: 17.05.2023 • Submission: 24.05.2023 • Debriefing: 24.05.2023

### Implementation Tasks

In this exercise series, the goal is to create a complete pipeline for training a GNN classifier. First, go to the ILIAS's webpage of the course and download/unzip Exercise\_7.zip in your PR\_Lecture folder. Then, navigate to PR\_lecture/Exercise\_7/ex7.ipynb and complete the missing part of the source code by following the instructions from the Jupyter-notebook.

Remark:

Before starting the exercise, ensure that you have installed the required packages, such as Jupyter Notebook, PyTorch, PyTorch-Geometric. If you haven't installed them yet, please do so before proceeding. Alternatively, you can use Google Colab, which offers a stable working environment with all the necessary packages already installed.

## Submission

For this exercise, you must submit a  $\, . \mathtt{zip}$  file containing your Jupyter Notebook.